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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,831	06/21/2001	John Joseph Curro	8592	8078

27752 7590 07/14/2004

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EXAMINER

PIERCE, JEREMY R

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/886,831	CURRO ET AL.
	Examiner	Art Unit
	Jeremy R. Pierce	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  
 If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  
 If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  
 Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 05 May 2004.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1,3-7,10-13 and 21-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3-7,10-13 and 21-29 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 05 May 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on May 5, 2004 has been entered. Claims 1, 7, and 29 have been amended. Claims 1, 3-7, 10-13, and 21-29 are currently pending. The amended claims are sufficient to withdraw the 35 USC 103 rejection set forth in section 11 of the last Office Action because Benson et al. does not specifically disclose the particulate material is non-thermoplastic.

### ***Drawings***

2. The corrected drawings were received on May 5, 2004. These drawings are accepted by the Examiner, and the objections to the Drawings set forth in sections 4-7 of the last Office Action are withdrawn.

### ***Terminal Disclaimer***

3. The terminal disclaimer filed on May 5, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent Application No. 09/467,938 has been reviewed and is accepted. The terminal disclaimer has been recorded. The Double Patenting rejection set forth in section 9 of the last Office Action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-7, 10-13, and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson et al. (U.S. Patent No. 5,628,097) in view of Shimalla (U.S. Patent No. 4,588,630) and further in view of Trinh et al. (U.S. Patent No. 5,429,628).

Benson et al. disclose an apertured nonwoven web for a topsheet in a diaper (column 7, lines 1-2). The web may be formed of multiple layers, including embodiments of three layers (column 7, lines 26-42). The two outer layers of such a multi-layer fabric would comprise Applicant's first and second prebonded webs because Benson et al. teach that the nonwoven web of fibers should be formed into a coherent web structure by bonding (column 7, lines 61-65).

Benson et al. disclose the nonwoven web has bond sites at a plurality of weakened, melt-stabilized regions (column 2, lines 45-59), but do not disclose the aspect ratio of the bond sites. Still, Benson et al. do teach that any suitable shapes may be used, including rectangular (column 8, lines 31-33). Shimalla discloses apertures formed in fused areas of nonwoven webs used for absorbent products (Abstract). Shimalla teaches the aspect ratio of the fused areas is a result effective variable that alters the characteristics of the resulting apertures (column 6, lines 13-21). It would have been obvious to a person having ordinary skill in the art at the time of the invention to form bond areas with an aspect ratio greater than 3 in the composite material of

Benson et al. in order to optimize the size of the resulting apertures for the intended use, as taught by Shimalla, since it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). With regard to the bond site fracturing, there is no quantification for the degree of force required to fracture the bond sites, and there would exist some degree of force that would fracture the bond site to expose the middle layer.

The middle layer of Benson et al. would comprise the substance layer disposed because it may comprise particles in addition to fibers (column 7, line 55); therefore, particles would be disposed between the first and second webs. However, Benson et al. do not disclose what substance the particles would be made from. Benson et al. does contemplate the use of non-thermoplastic materials by stating that wood pulp can be used (column 7, line 59). Trinh et al. teach that non-thermoplastic particles, such as cyclodextrin, activated carbon, and zeolite are useful in topsheet materials to provide odor absorption (column 2, line 20 –column 3, line 50). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use non-thermoplastic particles such as cyclodextrin, activated carbon, and zeolite in the composite material of Benson et al. in order to provide improved odor absorption, as taught by Trinh et al.

With regard to claim 3, Benson et al. teach using a roller that will form a repeating pattern of protuberances (column 8, line 23). It would have been obvious to a person having ordinary skill in the art at the time of the invention to have all the rectangular bond sites aligned in the same direction in order to form uniform apertures

in the topsheet of Benson et al. With regard to claims 5 and 11, Benson et al. disclose the nonwoven web may be formed into a laminate with various film layers (column 10, lines 13-23). With regard to claim 13, Benson et al. disclose chemical bonding as an option (column 7, line 63), but offer other alternatives and do not require it. With regard to claims 21-23, 25-27, and 29, neither Benson et al. nor Shimalla disclose the length and width dimensions of the bond sites. However, Benson et al. disclose that various shapes can be used, and Shimalla teaches that dimensions of bond sites are result effective variables that affect the resulting apertures. It would have been obvious to a person having ordinary skill in the art at the time of the invention to make the bond sites with a length of less than 0.2 or 0.1 inches and a width of less than 0.02 inches in order to optimize the aperture size for use as a topsheet in a diaper, since it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. With regard to claims 24, 28, and 29, the particle material would be continuously dispersed in the central layer because Benson et al. disclose the mixtures are formed under a gas stream (column 7, line 56), which would thoroughly mix the particles with the fibers.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 7, and 29 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 1771

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeremy R. Pierce  
Examiner  
Art Unit 1771



ELIZABETH M. COLE  
PRIMARY EXAMINER